

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>104051-WO-00</b>	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. <b>PCT/JP2004/003356</b>	International filing date (day/month/year) <b>12.03.2004</b>	Priority date (day/month/year) <b>31.03.2003</b>
International Patent Classification (IPC) or national classification and IPC		
Applicant <b>SUMITOMO ELECTRIC INDUSTRIES, LTD.</b>		

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.																								
2.	This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.																								
3.	This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>8</u> sheets, as follows:             <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> </li> <li>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</li> </ul>																								
4.	This report contains indications relating to the following items: <table border="0"> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/003356

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-3, 6-9, 11-22 as originally filed/furnished
- pages\* 4, 5, 5/1, 10 received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 20 as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* 1, 5, 6, 9, 11, 12, 15, 16, 17, 18, 19, 21 received by this Authority on 22.10.2004
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/4-4/4 as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☒ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☒ the claims, nos. 2, 3, 4, 7, 8, 10, 13, 14
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	5, 6, 11, 12, 15-21	YES
	Claims	1, 9	NO
Inventive step (IS)	Claims	19, 20	YES
	Claims	1, 5, 6, 9, 11, 12, 15-18, 21	NO
Industrial applicability (IA)	Claims	1, 5, 6, 9, 11, 12, 15-21	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
Document 1: JP 2003-22849 A (Citizen Watch Co., Ltd.), 24 January 2003			
Document 2: JP 56-121202 A (Sumitomo Electric Industries, Ltd.), 24 September 1981			
Document 3: JP 2003-59611 A (Sumitomo Electric Industries, Ltd.), 28 February 2003			
Document 4: JP 5-102659 A (Mitsubishi Materials Corporation), 23 April 1993			
<p>The inventions set forth in claims 1 and 9 lack novelty in the light of document 1 cited in the international search report. Document 1 newly cited in the international preliminary examination report indicates that a porous film is made to serve as a base film, and that conductive portions are formed in through holes by plating while maintaining the porous structure of the porous material.</p> <p>The inventions set forth in claims 5, 6 and 16 do not involve an inventive step in the light of documents 1 and 2 cited in the international search report. Document 2 newly cited in the international preliminary report indicates that a porous polytetrafluoroethylene film is made to serve as a base film, and that conductive</p>			

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

portions are formed while maintaining the porous structure of the porous material. Document 1 does not indicate that the porous film is a polytetrafluoroethylene film, but it would be easy for a person skilled in the art to conceive of applying the polytetrafluoroethylene film set forth in document 2 as a conductive film in the invention set forth in document 1 in order to solve the problem of obtaining a conductive film with elastic properties.

The invention set forth in claims 11 and 12 does not involve an inventive step in the light of documents 1 and 3 cited in the international search report. Document 3 (paragraph 0015) indicates that when producing an anisotropic conductive film having porous polytetrafluoroethylene film as a base film, through holes are formed using synchrotron radiated light or laser light with a wavelength not exceeding 250nm. In addition, ultrasonic machining is a known technique of making holes.

The invention set forth in claim 15 does not involve an inventive step in the light of documents 1 and 3 cited in the international search report. Document 3 indicates that electroless plating is carried out by a similar process to the process set forth in claim 15 of this application.

The invention set forth in claims 17 and 18 does not involve an inventive step in the light of documents 1, 3 and 4 cited in the international search report. Document 4 indicates that the adherence of unnecessary conductive

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paste to the substrate is prevented by providing a layer comprising a polytetrafluoroethylene film.

The invention set forth in claims 19 and 20 involves an inventive step in relation to the aforementioned documents. None of the cited documents indicates that a liquid is impregnated into a laminar body comprising a polytetrafluoroethylene film, and that said liquid is then made to freeze.

The invention set forth in claim 21 does not involve an inventive step in the light of document 1 cited in the international search report. Document 1 does not disclose specific values for particle size and the quantity of conductive metal deposited, but these values are a design matter which would be determined by a person skilled in the art taking into account various conditions when implementing the feature set forth in document 1, and this feature does not involve an inventive step.